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Application Number	10/757,778
Filing Date	January 15, 2003
First Named Inventor	Michael P.C. Watts
Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P80/MII-40-22-03

Total Number of Pages in This Submission

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Forty-eight (48) References
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Remarks

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Firm or Individual name	Law Office of Kenneth C. Brooks
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Signature	<i>Kenneth C. Brooks</i>
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Date	3/3/04
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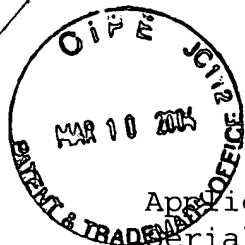
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Watts et al.

PATENT APPLICATION

Serial No.: 10/757,778

Group Art Unit: Unassigned

Filing Date: January 15, 2003

Examiner: Unassigned

For: A METHOD TO IMPROVE THE FLOW RATE OF IMPRINTING MATERIAL

INFORMATION DISCLOSURE STATEMENT

Commissioner

for Patents

Alexandria, VA 22313-1450

Sir:

The following information is submitted in compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56. Form PTO-1449 and a copy of each reference recited below accompanies this document. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

ISSUED PATENTS

<u>Patent Number</u>	<u>Inventor</u>	<u>Grant Date</u>
4,267,212	Sakawaki	05/12/1981
4,451,507	Beltz et al.	05/29/1984
4,731,155	Napoli et al.	03/15/1988
5,259,926	Kuwabara et al.	11/09/1993
5,480,047	Tanigawa et al.	01/02/1996
5,512,131	Kumar	03/03/1998
5,723,176	Keyworth et al.	03/03/1998
5,772,905	Chou	06/30/1998
5,776,748	Singhvi et al.	07/07/1998
5,779,799	Davis	07/14/1998
5,900,160	Whitesides et al.	05/04/1999
5,912,049	Shirley	06/15/1999
5,948,470	Harrison et al.	09/07/1999
6,039,897	Lochhead et al.	03/21/2000
6,074,827	Nelson et al.	06/13/2000

6,128,085	Buermann et al.	10/03/2000
6,143,412	Schueller et al.	11/07/2000
6,180,239	Whitesides et al.	01/30/2001
6,334,960	Willson et al.	01/01/2002
6,355,198	Kim et al.	03/12/2002
6,361,831	Sato et al.	03/26/2002
6,391,217	Schaffer et al.	05/21/2002
6,518,168	Clem et al.	02/11/2003

OTHER PATENT DOCUMENTS

09/698,317	Choi et al.	10/27/2000
09/908,455	Choi et al.	07/17/2001
09/920,341	Choi et al.	08/01/2001
10/191,749	Watts et al.	07/09/2002
10/194,414	Sreenivasan et al.	07/11/2002
10/194,991	Sreenivasan et al.	07/11/2002

FOREIGN PATENT DOCUMENTS

<u>Document No.</u>	<u>Inventor</u>	<u>Pub. Date</u>
DE 2800476	Lamprecht et al.	07-13-1978
JP 1-196749	Matsumoto et al.	08-08-1989
WO 01/53889	Ling et al.	07-26-2001
WO 01/69317	Montelius et al.	09-20-2001
WO 01/90816	Heidari	11-29-2001

NON-PATENT DOCUMENTS

Cowie, J.M.G. "Polymers: Chemistry and Physics of Modern Materials," 2nd Ed., pp. 408-409, 1991.

Krug, Herbert et al. "Fine Patterning of Thin Sol-Gel Films," *Journal of Non-Crystalline Solids*, pp. 447-450, 1992.

Krauss, et al. "Fabrication of Nanodevices Using Sub-25nm

Imprint Lithography," *Appl. Phys. Lett.*, 67(21), pp. 3114-3116, 1995.

Chou et al. "Imprint of Sub-25 nm Vias and Trenches in Polymers," *Applied Physics Letters*, 67(21), pp. 3114-3116, 1995.

Chou et al. "Imprint Lithography with 25-Nanometer Resolution," *Science*, vol. 272, pp. 85-87, Apr. 5, 1996.

Haisma, J. et al. "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," *Journal of Vacuum Science and Technology*, vol. 14, pp. 4124-4128, 1996.

Chou et al. "Imprint Lithography with Sub-10 nm Feature Size and High Throughput", *Microelectronic Engineering* 35, pp. 237-240, 1997.

Scheer, H.C. et al. "Problems of Nanoimprinting Technique for Nanometer Scale Pattern Definition," *Journal of Vacuum Science and Technology*, vol. 16, pp. 3917-3921, 1998.

Xia, Y. et al. "Soft Lithography," *Annu. Rev. Mater. Sci.*, vol. 28, pp. 153-184, 1998.

Xia et al. "Soft Lithography," *Angew. Chem. Int. Ed.*, vol. 37, pp. 550-575, 1998.

Colburn, M. et al. "Step and Flash Imprint Lithography: New Approach to High-Resolution Patterning," *Proc. of SPIE*, vol. 3676, pp. 379-389, 1999.

Chou, Stephen et al. "Lithographically-induced Self Assembly of Periodic Micropillar Arrays," *Journal of Vacuum Science and Technology*, vol. 17, pp. 3197-3202, 1999.

Chou. "Nanoimprint Lithography and Lithographically Induced Self-Assembly," *MRS Bulletin*, pp. 512-517, July 2001.

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Respectfully,



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Facsimile: 512-527-0107

patentsrus@earthlink.net

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Application Number	10/757,778
Filing Date	01/15/2004
First Named Inventor	Watts et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P80/MII-40-22-03

U.S. PATENT DOCUMENTS

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Application Number

10/757,778

Filing Date

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Watts et al.

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				Application Number	10/757,778
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				First Named Inventor	Watts et al.
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Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A30	COWIE, "Polymers: Chemistry and Physics of Modern Materials," 1991, pp. 408-409, 2 nd Ed, Chapman and Hall, a division of Routledge, Chapman and Hall, Inc., 29 West 35 th Street, NY, NY 10001-2291.	
	A31	KRUG et al., "Fine Patterning of Thin Sol-Gel Films," Journal of Non-Crystalline Solids, 1992, pp. 447-450, vol. 147 & 148.	
	A32	Krauss et al., "Fabrication of Nanodevices Using Sub-25nm Imprint Lithography," Appl. Phys. Lett 67(21), 3114-3116, 1995	
	A33	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	A34	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
	A35	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
	A36	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
	A37	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
	A38	XIA et al., "Soft Lithography," Annu. Rev. Mater. Sci., 1998, pp. 153-184, vol. 28.	
	A39	XIA et al., "Soft Lithography," Agnew. Chem. Int. Ed., 1998, pp. 550-575, vol. 37.	
	A40	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	

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Sheet	4	of	4	Attorney Docket Number	P80/MII-40-22-03

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	A41	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
	A42	CHOU, "Nanoimprint Lithography and Lithographically Induced Self-Assembly," MRS Bulletin, July 2001, pp. 512-517.	
	A43	CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317, Filed with USPTO on October 27, 2000..	
	A44	CHOI et al., "Method and System of Automatic Fluid Dispensing for Imprint Lithography Processes," U.S. Patent Application 09/908,455, Filed with USPTO on July 17, 2001.	
	A45	CHOI et al., "Methods for High-Precision Gap and Orientation Sensing Between a Transparent Template and Substrate for Imprint Lithography," U.S. Patent Application 09/920,341, Filed with USPTO on August 1, 2001.	
	A46	WATTS et al., "System and Method for Dispensing Liquids," U.S. Patent Application 10/191,749, Filed with USPTO July 9, 2002.	
	A47	SREENIVASAN et al., "Step and Repeat Imprint Lithography Systems," U.S. Patent Application 10/194,414, Filed with USPTO July 11, 2002.	
	A48	SREENIVASAN et al., "Step and Repeat Imprint Lithography Processes," U.S. Patent Application 10/194,991, Filed with USPTO July 11, 2002.	

Examiner Signature		Date Considered	
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